

COLUMBIA
FALLS

CHRONOLOGY OF ENVIRONMENTAL-RELATED EVENTS
INVOLVING THE ANACONDA COMPANY ALUMINUM
REDUCTION PLANT, COLUMBIA FALLS, MONTANA

Background

Aluminum production became a viable opportunity in Montana when Hungry Horse Dam was completed in Flathead County in northwestern Montana in 1953. The Federal legislation authorizing this dam provided for a block of power to be used for industrial growth within 15 miles of the dam. Harvey Machine Company, headquartered in Los Angeles, had secured a contract for the purchase of electric power from Bonneville Power Administration and had selected a site for construction of an aluminum reduction plant in Flathead County. However, Harvey was unable to obtain the necessary financing and sold its interest to The Anaconda Company which formed Anaconda Aluminum Company in 1953 and commenced the construction of an aluminum reduction plant near Columbia Falls, a small community about 15 miles from Glacier National Park. Production started in 1955.

Of the new reduction plants being built at that time, some were horizontal stud Soderberg plants, some were pre-bake plants and some were vertical stud Soderberg plants. Engineers were engaged by Anaconda to study various plants to make recommendations for the most suitable type of installation. The vertical stud Soderberg was recommended and two potlines--120 electrolytic cells or pots--were installed at a capital cost of \$61 million.

When the first two potlines began operation in 1955, they contained the best primary fluoride system then available. This consisted of a complex network of fans and air ducts which captured most of the fluoride-containing

gas generated by each cell and directed it through wet ground scrubbers. The third potline, on stream in 1965, and the fourth and fifth in 1968, also incorporated this system. By 1968, Anaconda Aluminum had spent over \$13,000,000 in installing and maintaining this system, which eventually was treating the gas from 600 pots through 30 scrubber towers.

Major Environmental-Related Events

- 1968 When the fourth and fifth potlines became operational in 1968, increasing the production capacity to 180,000 tons of aluminum per year, the start-up problems associated with starting such a large facility proved to be unexpectedly severe and sustained, and resulted in emission levels beyond those projected. This caused some damage to vegetation near the plant and relatively high readings on the fluoride testing equipment we have located around the plant. At that time, the company instituted operational improvements which were gradually successful in reducing fluoride emissions by about 30 percent from those start-up levels.
- 1970 April - A case was filed in Flathead County District Court by a man and wife living near the plant setting forth four claims: Timber trespass allegedly due to defendant's cutting plaintiffs' timber; alleged damage to trees, a hazard to human health, the inability to divide their property for subdivision purposes, and adverse effect on vegetation and crops and injury to livestock; alleged that they had been forced to ingest intolerable amounts of fluoride and other pollutants, and their previous disease conditions, including those of heart and lung, had been exacerbated, their life expectancy had been shortened and the ecology of their property

had been destroyed; alleged that the foregoing trespasses had been malicious and, therefore, sought to recover punitive damages. The damages claimed by plaintiffs totalled \$2,380,000.

The complaint was amended several times and during the years it was pending, numerous efforts were made to settle it. These efforts finally culminated in success in 1975 when the company agreed to buy the property and to obtain a dismissal of the lawsuit and release of all claims, with stipulation that the property would be leased back to the plaintiff and to his son until each had either passed away or had abandoned the property.

May - The State Board of Health held a hearing in Helena to hear discussion regarding proposed new air pollution control regulations. The State Department of Health and Environmental Sciences asked that fluorides should not be emitted in excess of .06 pounds per hour per reduction cell. As applied to the Columbia Falls plant, this regulation would result in an emission limitation of 864 pounds of fluorides per day. The Department of Health also asked for a particulate limitation of between 1,188 and 16,128 pounds per day. This would depend upon whether the regulation is interpreted to be each pot or all potrooms combined.

July - The State Board of Health agreed with Department of Health; their suggestions were made mandatory and it became necessary for the plant at Columbia Falls to be in compliance by July 1, 1973.

September - A class action was filed in Flathead County District Court by a local dentist and his wife. In their complaint, the

plaintiffs purported to be acting on behalf of persons living in a geographical area that was near the aluminum plant, and contended that emissions from the plant had destroyed trees, forage, grass, shrubbery, flowers and other vegetation life and damaged the natural beauty of the environment. They sought to recover a total of \$21,500,000 in damages. The final result, after a lot of legal maneuvering, was that very few persons were interested in pursuing the matter even though the number allegedly was 6,000. Consequently, on May 15, 1973, the presiding judge entered a judgment of dismissal, thus ending this class proceeding. During the time of litigation, a reporter from the Los Angeles Times came into the area and wrote an uncomplimentary piece about the plant. Upon investigation, it was learned that the aunt of the dentist who filed the suit was a major stockholder in that newspaper. A story also appeared in the New York Times written by a correspondent who was in the state on another matter. This was followed by a film crew from the Encyclopaedia Britannica Educational Corp. They shot a film about the controversy that to this day is being shown in schools across the nation.

During the time the previously mentioned lawsuits were filed, there were also filed 26 additional lawsuits against the company for air pollution. These cases were of the same general character as the first suit. However, the properties involved were located much farther from the aluminum plant. These cases are still pending.

The aluminum rod casting plant was cited in 1970 for failing to meet State of Montana regulations restricting the emission of visible

air contaminants at the furnace stacks. This was resolved by the application of a patented hot metal filter cleaning system. This system prevents the emission of visible air contaminants.

1972 After testing during the entire year of 1972, Anaconda determined that an average of 2,500 pounds per day of fluorides emanated from the plant. It was obvious that the plant would not be in compliance by the deadline of July 1, 1973 as stipulated by the Montana State Implementation Plan. The company decided to petition for a variance from the provisions of stipulation.

1973 June - Filed application for a variance.

August - Montana Congressman John Melcher, a member of the Committee on Interior and Insular Affairs, convened a Subcommittee on public lands, of which he was chairman, in Missoula, Montana. He was the only member present. The purpose of the meeting was to hear testimony regarding complaints about the plant damaging Flathead National Forest and Glacier National Park. The statements which were made and which were injected into the record were primarily contrary to to the interests of Anaconda.

September - The subcommittee reconvened for further hearings in Washington, D.C. It was decided that, in view of the problems arising out of alleged damage to a National Forest and a National Park, the company should make a presentation. Statements were given by the President of the Aluminum Division, the company's environmental consultant, and two outside biology consultants. After two days,

the subcommittee hearings were adjourned and no further action was taken by Congress.

October - After reviewing the company's petition for a variance, the Director of the Department of Health and Environmental Sciences appointed a Helena, Montana attorney as hearing examiner and ordered that all correspondence and motions concerning the petition be directed to him.

1974 February - The first conference between company attorneys, the hearing examiner and members of a Portland, Oregon law firm hired to represent the State.

March - The hearing examiner prepared a "Preliminary Order" setting out certain ground rules to be followed by the parties.

April - Because of the fact that the deadline for compliance was near, the company filed an application in which Anaconda requested that such variance that might be granted be for an additional period of one year.

The hearing examiner sent out a notice setting a hearing on the application for a variance for August 12, 1974 in Helena, with the same to be continued on September 5, 1974 in Kalispell, Montana.

In the meantime, the Department of Health prepared a draft Environmental Impact Statement which was circulated for public comment and recommendations. Following this, it adopted its final E.I.S. which, among other matters, contained a recommendation that the Board of

Health deny the request for variance by the company, but also proposed generally the adoption of a compliance schedule.

About the same time, representatives of the company and the Department conferred in various places in Montana concerning the development of technology for a secondary exhaust system for the plant at Columbia Falls.

July - As a result, the company entered into what was entitled "Stipulation of Proposed Compliance Schedule for Variance" setting forth a compliance schedule within which the company was to perform certain acts in order to reach compliance with the applicable Montana air pollution regulations. It was also stipulated that this schedule be submitted to the hearing examiner prior to the regularly scheduled hearings on August 12, 1974 as the recommendation of the parties that the stipulation be adopted by the Board and that variances be granted by the Board to permit the implementation of the compliance schedule. The stipulation was dated July 30, 1974.

August - The hearing proceeded on August 12, 1974 in Helena as scheduled. Thereafter, the hearing was adjourned to Kalispell commencing on September 5.

September - On September 27, 1974, the hearing examiner signed a document entitled "Recommendations of Hearing Examiner" in which he recommended that the stipulation should be approved by the Board of Health and a variance granted for the period described by law in accordance with the provisions of the stipulation.

On the same date, the Chairman of the Board of Health signed a document entitled "Approval and Adoption of Report of Hearing Examiner and Determination." Thus, the Board approved the recommendations made by the hearing examiner, and also directed the staff and personnel of the Department and Board to take the necessary steps to assist in the amendment and revision of the Montana State Implementation plan so that it might properly be submitted to the United States Environmental Protection Agency in accordance with the provisions of the United States Clean Air Act and the applicable Montana statutes and regulations and orders of the Board. The Board actually approved two variances, one being retroactive to July 1, 1973.

November - In accordance with the stipulation, the company submitted to the Board of Health a "Conceptual Control Plan" whereby the Columbia Falls plant would design and install roof scrubbers of a Swedish design called foam scrubbers. The plan called for completion of the installation by June 1, 1979. The Board approved the plan. As early as 1973, the company had been investigating this technology and had constructed a small test unit on one roof by the fall of 1974.

1975 May - Sumitomo Aluminium Company, of Japan, approached the company regarding technical support available for potline operations.

Summer - Completed installation of a larger test unit of the foam scrubber. Test results were marginal and it was uncertain if this concept would bring the plant into compliance with State standards.

November - A team of four operating staff went to Japan to visit Sumitomo vertical pin Soderberg smelter operations to determine the

feasibility of applying their technology to the Columbia Falls operation. At the same time, discussions were underway with Alcoa about the possibility of using their 398 dry scrubber, a system in use at our Sebree, Kentucky plant.

December - Staff members who had been to Japan recommended the implementation of the Sumitomo technology to the Columbia Falls plant as soon as possible.

The scope of the Sumitomo technology basically consisted of five major points:

- (1) Fundamental changes in cathode construction
- (2) Changes in the anode
- (3) Cell operation
- (4) An automatic crustbreaking system
- (5) A computer control program

1976 Work continued on the foam scrubbers and a complete unit was installed on one roof. During this time, we asked for, and received, another variance from the State Board of Health.

September 2 - A legal agreement between Sumitomo and Anaconda was reached to purchase Sumitomo technology.

September 27 - A Sumitomo team visited Columbia Falls to start the conversion ball rolling.

November - A technical team from Columbia Falls visited the Nagoya plant for technology exchange.

1977 January - The Department of Health concluded, as a result of a trip to Japan by Department personnel, that Anaconda could meet Montana environmental standards by installing the Sumitomo process.

The foam scrubber on one roof was activated.

February - Ten Sumitomo test cells were installed and became operational in March. The Sumitomo conversion process was underway.

July - Company personnel appeared before the State Board of Health to ask for continuation of the variance using Sumitomo technology. The Board agreed to grant the variance with the same compliance date of June, 1979, as established under the 1974 stipulation.

It was also requested that the Board allow the company to discontinue use of the foam scrubber as it was not performing to expectations and presented a fire hazard. The Board took the request under advisement.

December - The Board granted permission to discontinue use of the foam scrubber.

1978 June - Members of the State Board of Health visited the Columbia Falls plant and were impressed with the conversion progress. However, plant management personnel told the Board that some difficulties were being encountered in the conversion process and we may not be able to meet the June, 1979 deadline.

August - The State of Montana was given a formal project position emphasizing that the conversion would not be completed on the originally planned date of June 30, 1979.

September - The State Board of Health granted a variance until
June 30, 1979.

November 3 - The U.S. Department of Justice filed their suit.